

control motor, thereby to change the speed of said draw rollers with respect to said common drive mechanism.

6. Apparatus as claimed in claim 5 wherein said control circuit includes means for varying the latitude in said second sensing means, and for varying the sensitivity of said first sensing means, and an adjustable time-delay circuit arranged to control the relative length of time during which the control motor is energized upon the actuation of said two sensing means at the same time.

7. Apparatus for producing pieces of corrugated board having a pre-printed design on at least one liner thereof and wherein the pre-printed design is in proper registry with the pieces, said apparatus including a single-facer unit arranged to apply a first continuous liner to a continuous corrugating medium to form single-faced material, a double-facer unit adapted to apply a continuous pre-printed liner to the other side of the corrugating medium with glue therebetween, said pre-printed liner having a repetitive design and a plurality of register marks thereon for each repetition of the design, a pair of feed belts defining a relatively straight path and adapted to hold said single-faced material against said pre-printed liner while feeding them together along said straight path, a pair of draw rollers at the delivery end of said path and driving said feed belts, a common drive mechanism having an element rotating at substantially constant speed, a cut-off knife driven by said element, said draw rollers being driven by said common drive mechanism, a differential between said common drive mechanism and said draw rollers, a control motor coupled to said differential for controlling the relative speed of said draw rollers with respect to said constant speed element, a scanning device arranged to scan the pre-printed liner to sense the register marks thereof, a sensing device responsive to the rotation of said element and a control circuit under the joint control of said scanning and sensing devices and controlling said differential control motor.

8. Apparatus as claimed in claim 7 and wherein said cut-off knife moves at varying speeds with respect to said rotating element and produces one cut for each rotation of said element, said register marks being evenly spaced and during normal operation a predetermined number of said marks passing said scanning device for each rotation of said element.

9. Apparatus as claimed in claim 7 and wherein said feed belts have longitudinal resiliency and the speeding up and slowing down of said draw rollers is accommodated

by the resiliency of said belts and by the longitudinal resiliency of said corrugated board in said straight path, whereby said corrugated board in said straight path is actually stretched slightly or compressed slightly along its length to maintain registration with the cut-off knife.

10. Apparatus for producing pieces of corrugated board having a pre-printed design on a liner in proper register with respect to each piece comprising means for supplying a continuous web of material having a pre-printed "repetitive design" thereon, means for supplying a continuous web of corrugating medium and for assembling a continuous length of corrugated board by applying said pre-printed web to said corrugating medium with adhesive therebetween, a pair of counter-revolving feed belts adapted to feed said assembled corrugated board while holding said pre-printed liner in engagement with said corrugating medium thereby to bond them together, said assembled corrugated board being discharged from between said feed belts, a common drive mechanism for said apparatus, a pair of drive rollers for said respective feed belts located near the position where said corrugated board is discharged from between said feed belts, a differential drive mechanism coupled between said common drive mechanism and each of said drive rollers for varying the speed of said belt drive rollers with respect to said common drive mechanism, motor means for actuating said differential, cut-off mechanism driven by said common drive means for cutting said corrugated board into pieces, and a control circuit responsive to the relative position of said cut-off mechanism with respect to the position of said "repetitive design" and being connected to said motor means for controlling said motor means for varying the speed of said belt drive rollers, thereby to maintain the feed of the "repetitive design" on said corrugated board in synchronism with respect to said cut-off mechanism for maintaining said design in register with the cut pieces.

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